How to Set Up/Install Visual Studio Code with Java

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For Computer Science Students

Visual Studio Code

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Introduction

Computer Science majors at the University of Maryland Eastern Shore are exposed to many coding languages while they attend classes. To create code with these languages, an efficient compiler is needed. Visual Studio Code is a versatile computer application that is manufactured to enable the user to write and compile their code in different coding languages for assignments, projects, and personal work. Java is one such coding language that most Computer Science Majors will use. This manual will give new computer science majors an early start on being able to install and utilize Visual Studio Code, as well as installing the Java compiler extension in it as well.

Stage 1: Installing Visual Studio Code

1.1 Open your web browser and insert this URL: https://code.visualstudio.com/download
1.2 Click the download button for your appropriate operating system. (See Figure 1.1.)

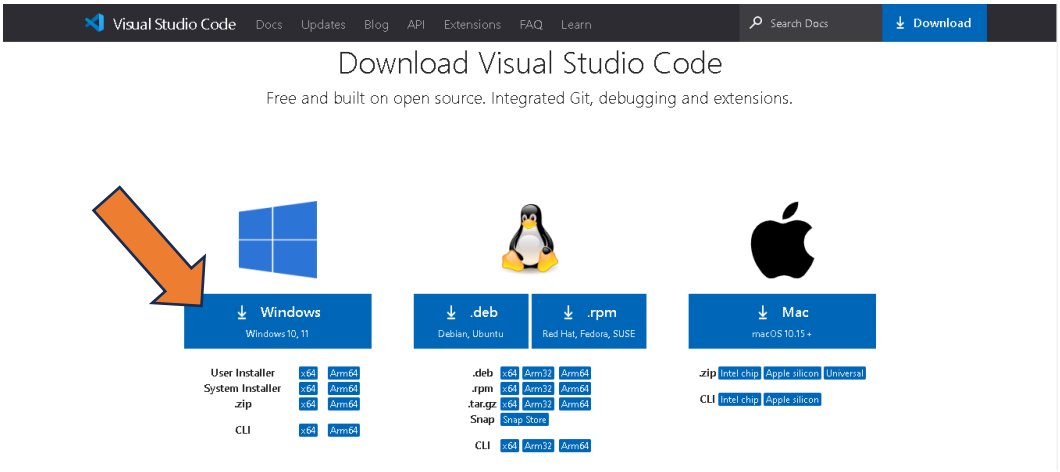

Figure 1.1. Selecting appropriate operating system download button.

1.3 When the download is complete, open the “File Explorer” on your desktop, navigate to “Downloads” and click on “VSCodeUserSetUp” file. (See Figure 1.2.)

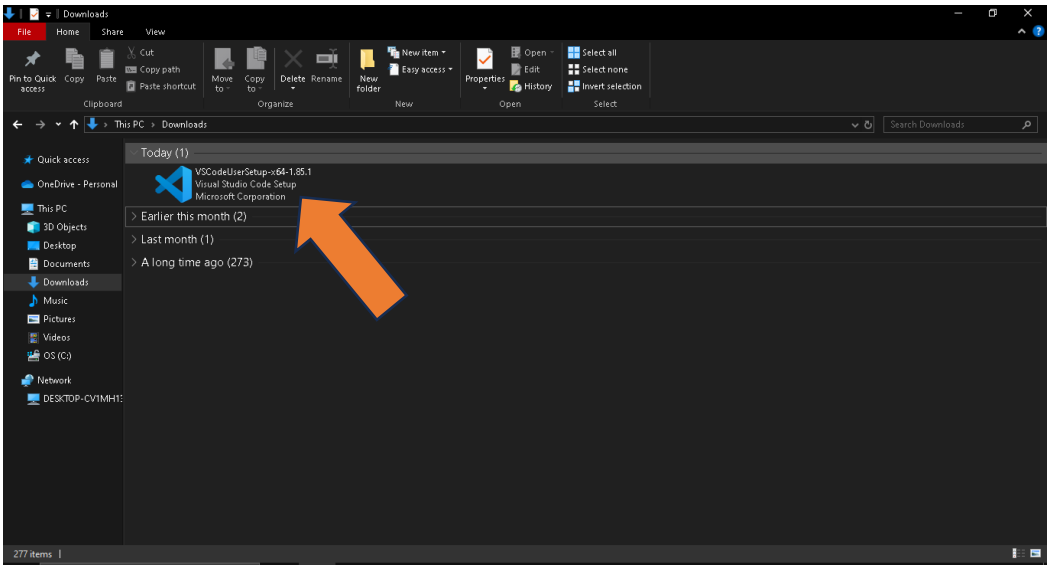

Figure 1.2. Clicking the “VSCodeUserSetUp” file.

1.4 The Setup screen will display the License Agreement, select the agreement check box, then click the “Next” button. (See Figure 1.3.)

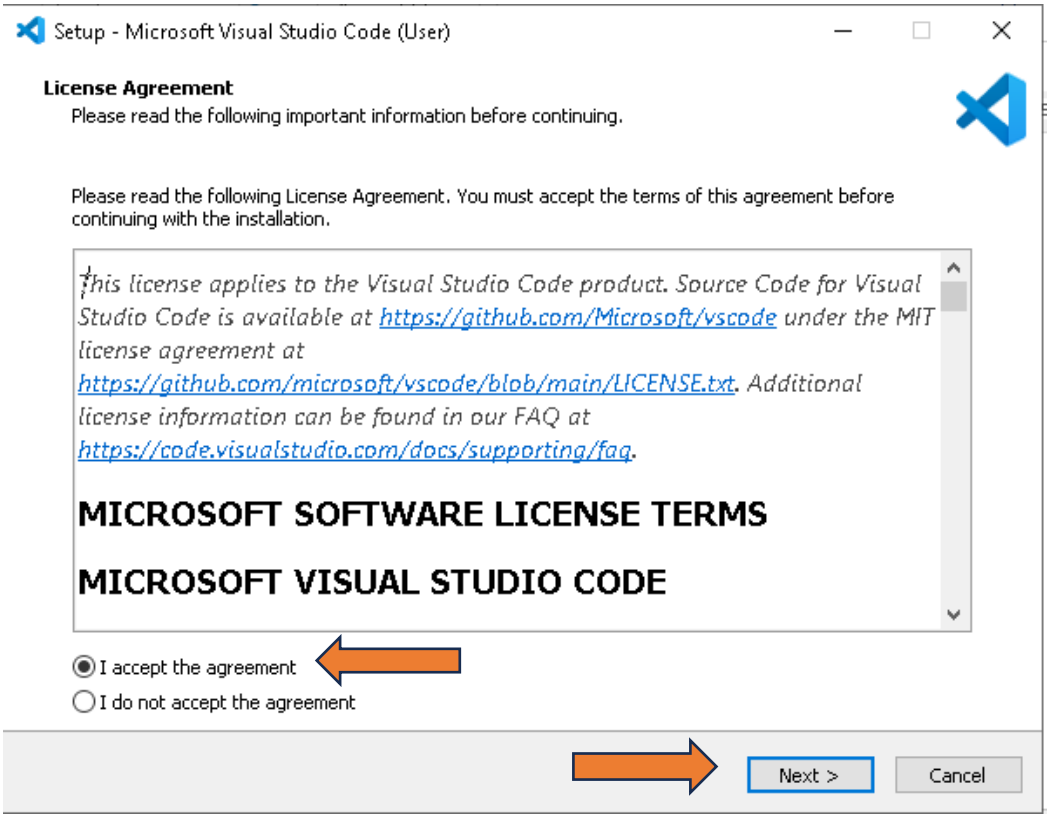

Figure 1.3. Accepting the agreement and clicking the "Next" button.

1.5 The next screen will display additional tasks that are optional to do, you can just click the "Next" button, as you can make changes later. (See Figure 1.4.)

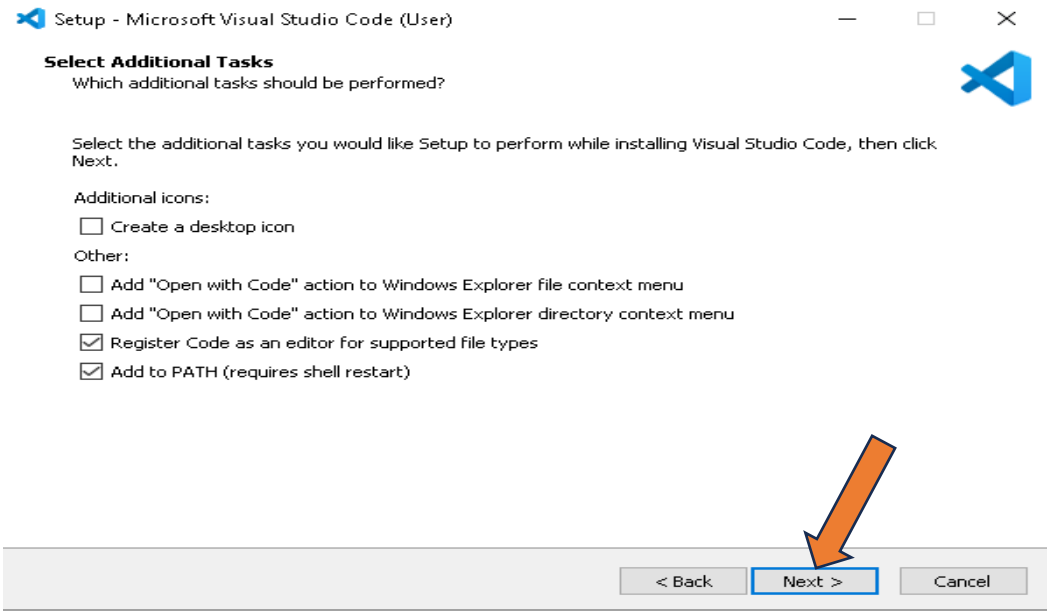

Figure 1.4. Clicking the "Next" button on additional tasks screen.

1.6 The next screen on Setup will display the “Install” button, click it to begin the application installation. (See Figure 1.5.)

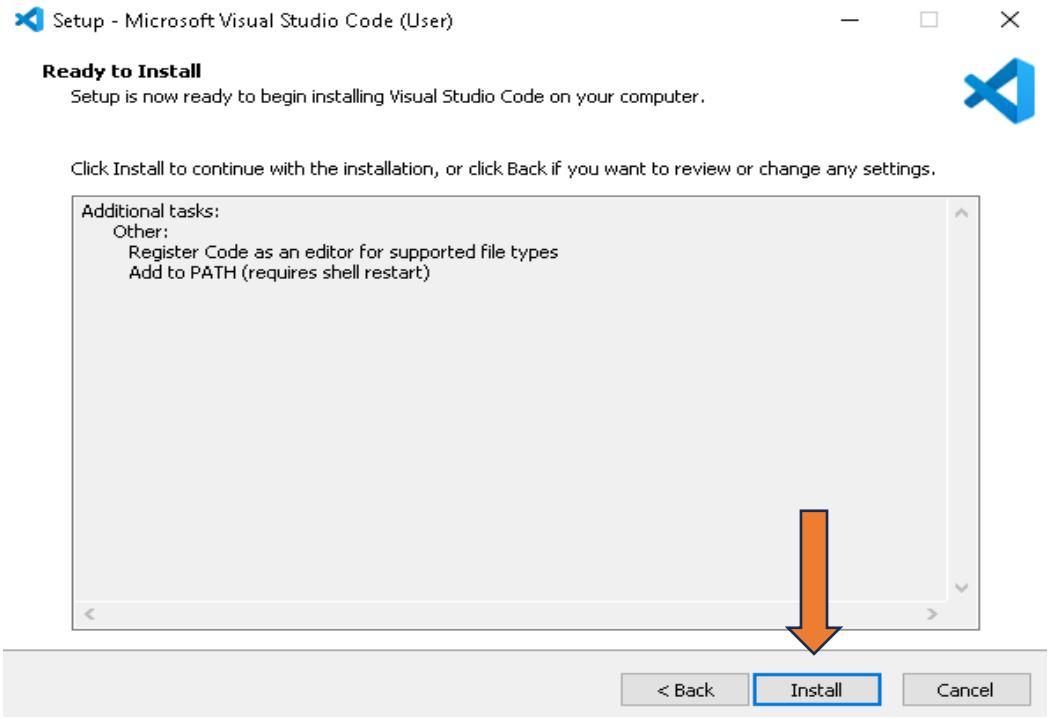

Figure 1.5. Clicking the “Install” button.

1.7 The last screen on Setup will display a confirmation message of the applications installment. The checkbox to open Visual Studio Code when you click finish is already selected, so just click the “Finish” button to launch Visual Studio Code. (See Figure 1.6.)

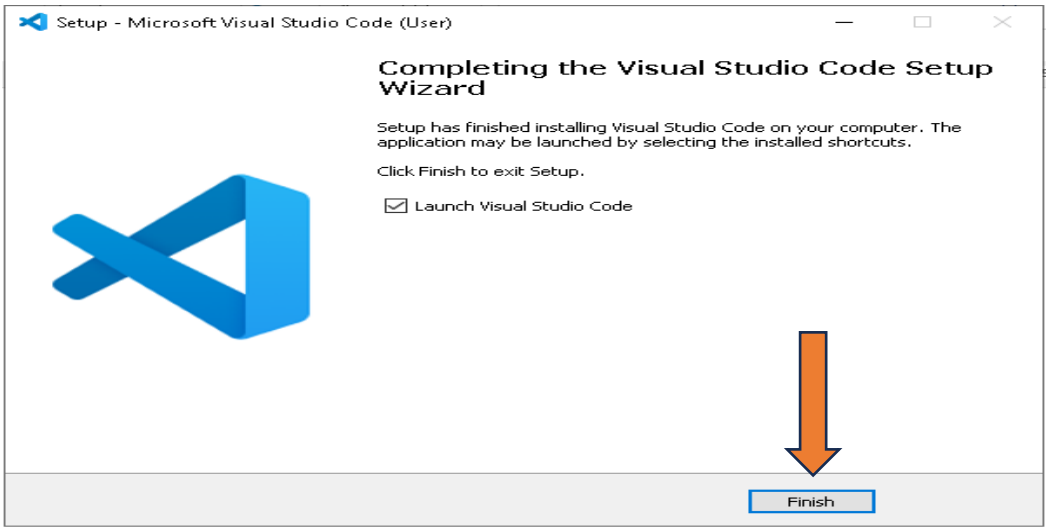

Figure 1.6. Completing Setup and clicking the “Finish” button.

Stage 2: Installing the Java Extension

2.1 Visual Studio Code should open with a screen showing Start and Walkthroughs. Hover your mouse to the left side of the screen and click on the icon with the 4 squares, that will be the Extensions badge. (See Figure 2.1.)

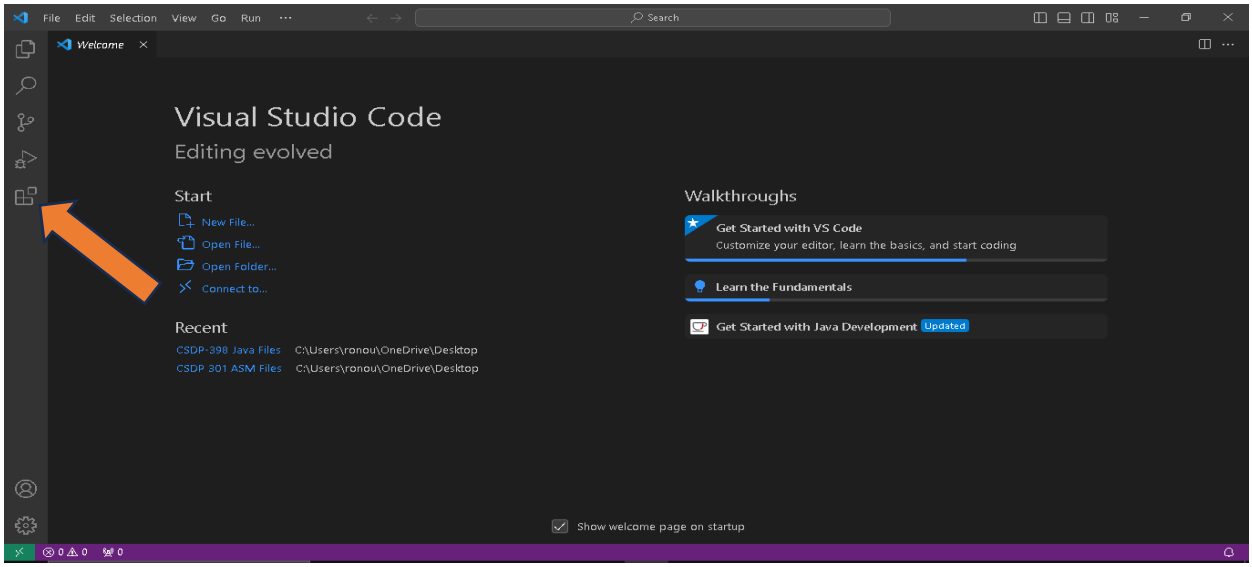

Figure 2.1. Locating and clicking on the Extensions badge.

2.2 In Extensions, type into the search bar “Debugger for Java”, the name should be the exact same and show an image of a cup, click on the link. (See Figure 2.2.)

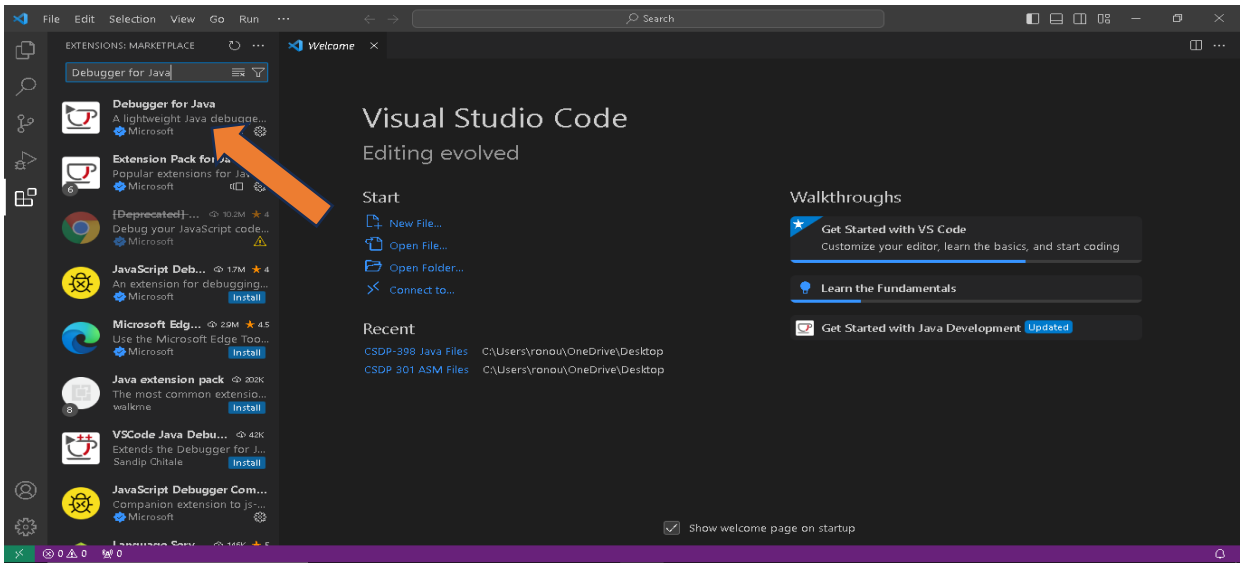

Figure 2.2. Locating Debugger for Java in Extensions.

2.3 The screen showing the installation for the Debugger for Java will display an “Install” button below the title, click it and the Java extension should be installed. (See Figure 2.3.)

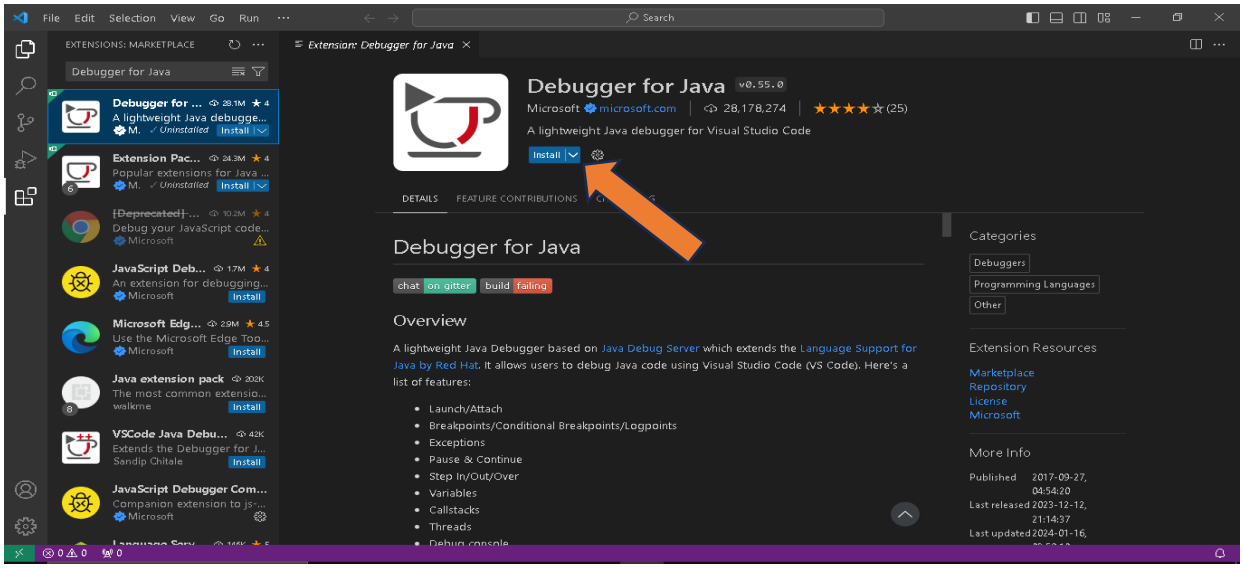

Figure 2.3. Installing the Debugger for Java.

Stage 3: Testing the Java Extension

3.1 To open a new file, hover your mouse over to the top left of the app, click “File” and then click on “New Text File”. (See Figure 3.1.)

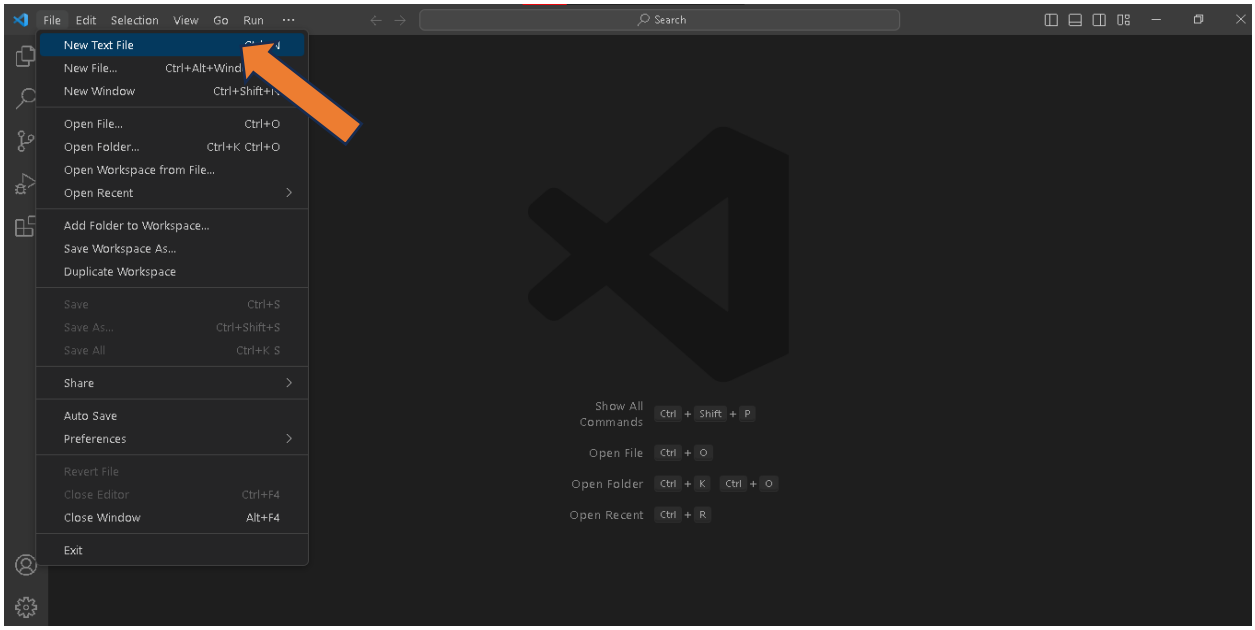

Figure 3.1. Clicking “File” and clicking “New Text File”.

3.2 An untitled file should appear with a sentence beginning with the words “Select a language”. Click on the first 3 words to select a coding language. (See Figure 3.2.)

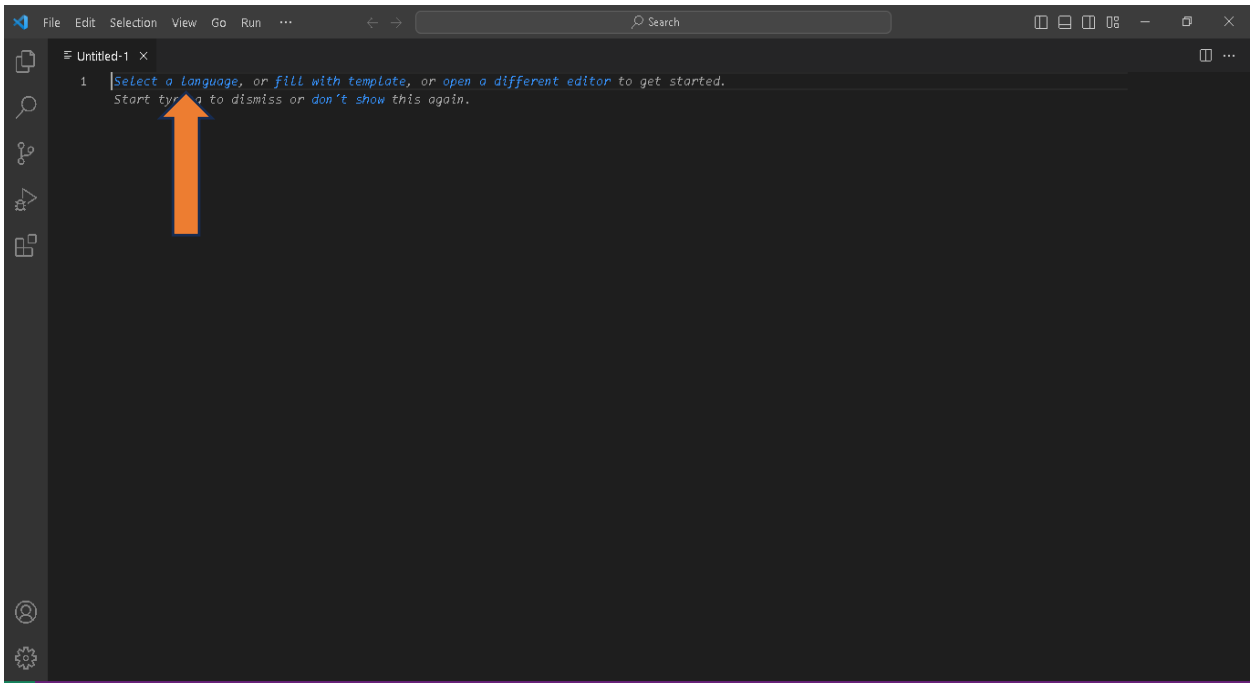

Figure 3.2. Locating “Select a language” in the New Text File.

3.3 A drop-down menu will appear in the top search bar, type in “Java” into the search bar and select the Java option displaying the red J. (See Figure 3.3.)

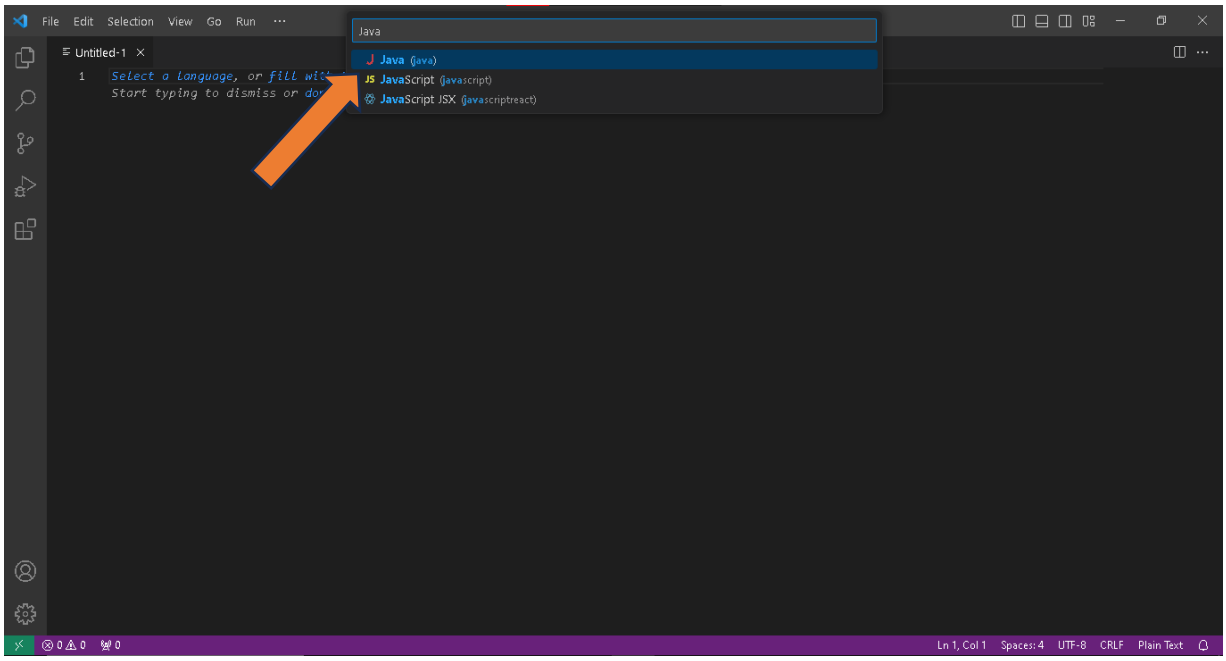

Figure 3.3. Selecting the Java coding language.

3.4 The text file should be ready for Java code. Type in the code sample provided in Figure 3.4 and save the Java file as “FreshWelcome” in your File Explorer. The name of the public class and the file name should be the saved Verbatim. The words “Run”, and “Debug” will appear automatically after you save the test code. (See Figure 3.4.)

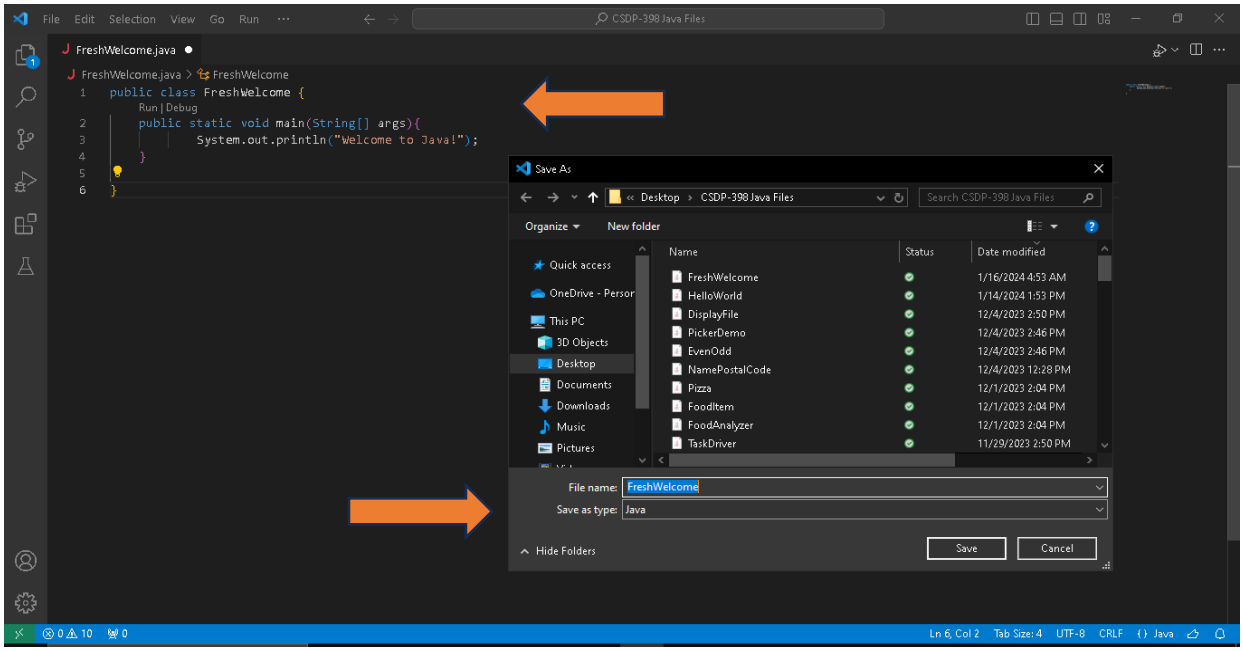

Figure 3.4. Typing in the test code and saving it as “FreshWelcome”.

3.5 To compile the code, hover your mouse over to the right side of the compiler. There should be a play button with a bug on it. Click the drop-down arrow and click “Run Java”. (See Figure 3.5.)

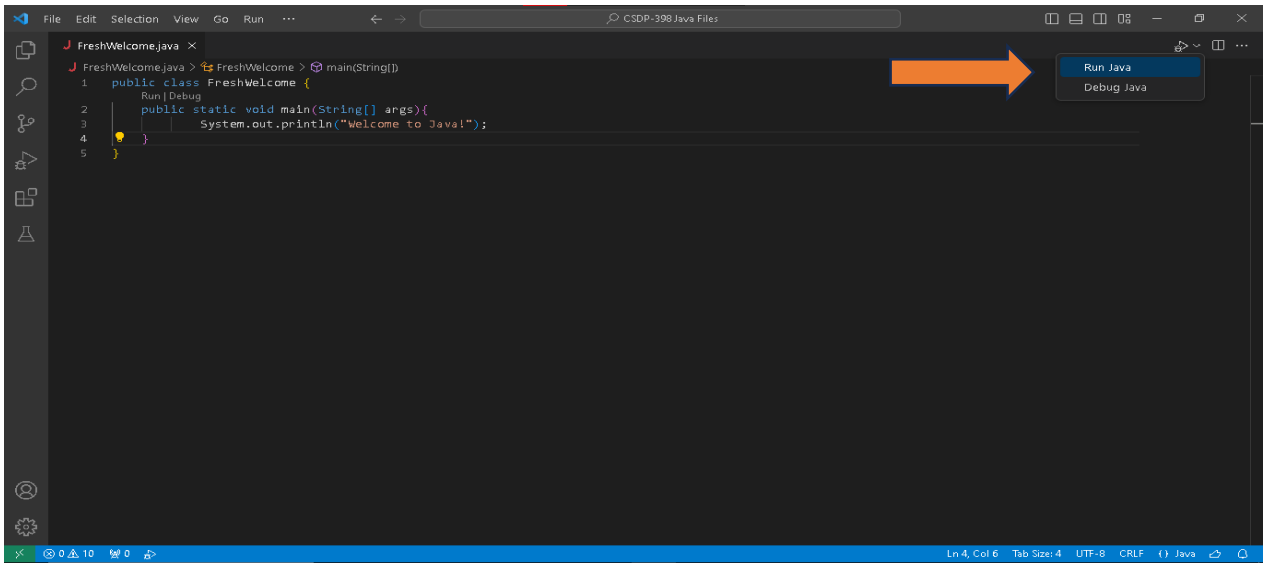

Figure 3.5. Compiling the test code.

3.6 When you click “Run Java”, a bottom panel should appear displaying lines of blue words involving the name of the users file route. Below the blue words should display the output of the “FreshWelcome” code: “Welcome to Java!”. (See Figure 3.6.)

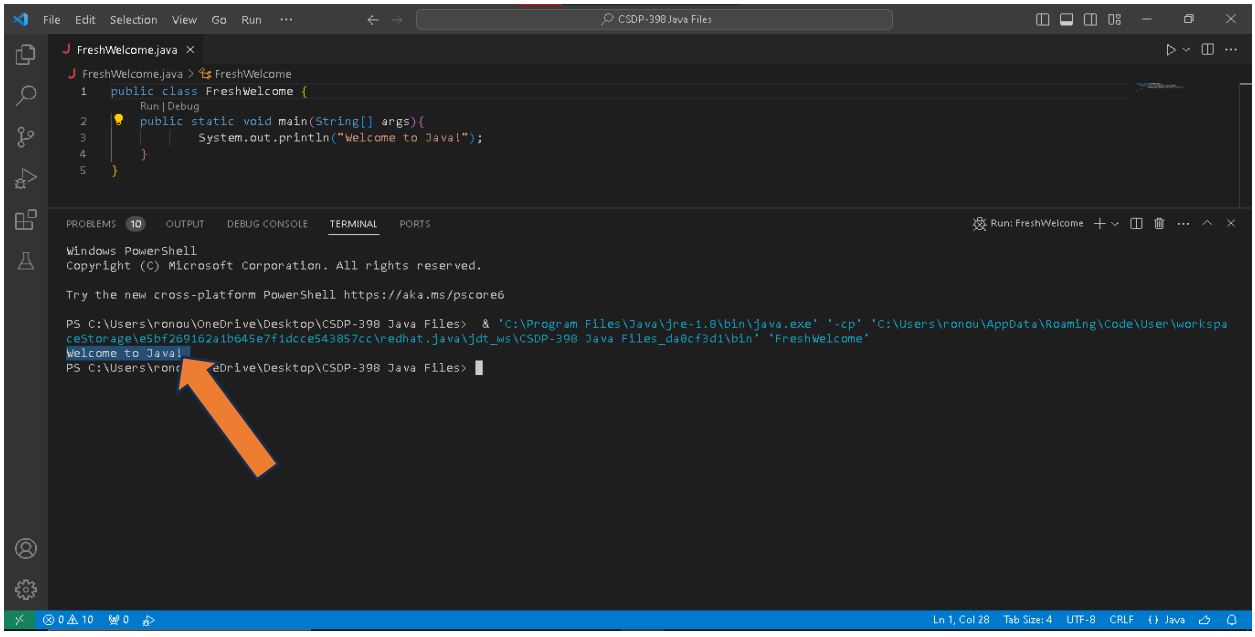

Figure 3.6. Displaying code output.

Conclusion

By the end of this tutorial, you should be able to effortlessly install Visual Studio Code onto your computer or laptop, as well as installing the Java Extension for it. In addition, this instruction manual should have given you an idea on how to install other coding extensions to your Visual Studio Code applications, enabling you to broaden your experience with coding. This tutorial was produced using the 2023 version of Visual Studio Code. If there are any questions or concerns you would like to address, reach out to bmrobinson1@umes.edu

Glossary

Compiler: A program that translates source code into machine code.

Java: A programming language used for coding web applications.

Text File: A blank file that can be typed on or modified depending on the user.

Extension: A part added on to something.

Operating System: Software that supports a computer's basic functions.

Output: What is produced when the code runs.

Debugger: A computer program that detects errors in other programs.

License Agreement: A legal contract between a software supplier and a customer.

Verbatim: Copied in exactly the same words as originally used.